

endocervical canal were referred for gynaecological assessment). The detection of CIN in only 5.8% (19/329) of these women, compared with the finding of histological evidence of CIN in 29% (17/59) of women undergoing colposcopy because they had vulval warts,³ may be of relevance in preventing cervical precancer. The findings in our patients may represent earlier detection than is possible when colposcopic examination is restricted to women with one (or often two or more) abnormal smears.

The question of who should undergo colposcopy may be answered best using principles of epidemiology. Women so investigated should certainly include all those with vulval warts, but including those at risk of infection with HPV also produces a high yield of abnormality. Provision of colposcopy solely for those with viral or other cervical smear abnormalities certainly appears to underdetect abnormal transformation zones.

Walker *et al* referred to the absence of an appreciable reduction in deaths from cervical cancer.³ In women aged under 30 the death rate from this disease has increased threefold from 0.22 per 100 000 in 1968 to 0.69 per 100 000 in 1985. (PHLS CDC, Sexually transmitted disease in Britain, 1985. CDR 87/45 dated 13.11.1987, unpublished.) This increase roughly paralleled the epidemiological curve of the increase in numbers of total new patients attending GUM clinics during the same period.

The collaboration of gynaecologists with genitourinary doctors trained in colposcopy offers input at opposite ends of a range of disease. Surely at a time when resource management will demand validation of cost efficiency, a large multicentre study for three to five years should be established to assess the wider application of colposcopy within departments of genitourinary medicine.

Yours faithfully,

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TO THE EDITOR, *Genitourinary Medicine*

Low dose oral ofloxacin to treat gonorrhoea in Hong Kong

Sir,

The increasing prevalence of penicillinase producing *Neisseria gonorrhoeae* has necessitated the search for new, simple, and safe alternatives to penicillin to treat patients with gonorrhoea. In 1986 Henderson *et al* reported from Hong Kong that 50% of all new male patients with gonorrhoea were infected by penicillin resistant strains.¹

Ofloxacin is a fluorinated quinolone that blocks bacterial gyrase and is bactericidal. Single dose oral treatment with ofloxacin for uncomplicated gonorrhoea has been reported. Rajakumar *et al* reported a 100% cure in 43 patients treated in Kuala Lumpur using a 400 mg dose of ofloxacin.² Henderson reported a 95% cure in 104 men in Hong Kong with a single 300 mg oral dose.³

During 1987/8 the first 50 men attending the British Military Hospital, Hong Kong, with untreated urethral gonorrhoea were treated with a single 300 mg dose of ofloxacin orally. Gonorrhoea was diagnosed by finding intracellular Gram negative diplococci in the urethral smears or by culture on selective media. All men were asked to refrain from further sexual activity and were examined again on days 7 and 21. Treatment failure was defined as the persistence of gonococci in the urethral swabs either on microscopy or culture when patients had abstained from further sexual intercourse. All 50 men were followed up for 21 days. There were no treatment failures. Eight had postgonococcal urethritis, which was defined by a urethral discharge containing more than 10 polymorphonuclear leucocytes per $\times 1000$ field, but no gonococci, after abstaining from further intercourse. No drug side effects were reported.

The next 50 consecutive men with untreated urethral gonorrhoea were treated with a single 200 mg oral dose of ofloxacin. All were followed up for 21 days; 49 of the men were cured. Postgonococcal urethritis was found in eight. Of the 50 gonococcal infections, 22 were caused by penicillinase producing *N gonorrhoeae*.

The incidence of penicillin resistant strains of *N gonorrhoeae* isolated in men with gonorrhoea in Hong Kong remains at 50%.

Correspondence

Treatment with a single 200 mg dose of ofloxacin is as successful as previously reported treatment regimens using higher doses and provides a simple, effective, and inexpensive treatment for men with gonorrhoea.

Yours faithfully,
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TO THE EDITOR, *Genitourinary Medicine*

Severity of urethritis in Reiter's disease

Sir,

Reiter's disease has been defined by the American Rheumatism Association as being necessarily associated with non-gonococcal urethritis (NGU), which may be low grade and is sometimes detected only from an early morning urethral smear.¹ I carried out a study to assess whether there was any significant difference between the severity of the urethritis in Reiter's disease and that in uncomplicated NGU.

I assessed retrospectively the case notes of 101 patients with Reiter's disease attending the department of genitourinary medicine of the Middlesex Hospital in 1970 to 1979. I excluded patients whose diagnosis was in doubt using the ARA criteria, those about whom information was inadequate, and one woman who satisfied the criteria. The study

Table 1 Point scoring system to assess severity of urethritis

| Symptoms or signs | Score |
|---|-------|
| Dysuria | 1 |
| Urethral discharge noted by patient | 1 |
| Urethral discharge noted by doctor | 1 |
| Urethritis* diagnosed from early morning smear only | 1 |
| Urethritis* diagnosed without early morning smear | 2 |

*Defined by 10 or more pus cells per high powered field in a urethral smear.

Table 2 Severity of urethritis in men with Reiter's disease or non-gonococcal urethritis (NGU)

| Score | No of men with: | |
|-------|---------------------------|--------------|
| | Reiter's disease (n = 27) | NGU (n = 25) |
| 1 | 3 | 0 |
| 2 | 3 | 2 |
| 3 | 4 | 5 |
| 4 | 7 | 9 |
| 5 | 10 | 9 |
| Total | 27 | 25 |

group consisted of 27 patients who were in the early stages of an acute first attack of Reiter's disease, and the controls were 25 randomly selected men with NGU. Table 1 shows the point scoring system used to assess the severity of the urethritis, which meant that 5 was the maximum score and 1 the minimum.

Table 2 shows the numbers of men with Reiter's disease or NGU in relation to the severity of their urethritis. The χ^2 test showed no difference between the two diagnoses. As the urethral response showed the same range of severity in Reiter's disease and NGU, neither low grade nor severe urethritis was particularly associated with Reiter's disease. *Chlamydia trachomatis* has been isolated from about half the patients with NGU,² and this organism has also been linked aetiological to Reiter's disease.³ I therefore suggest that the cause and the severity of the urethritis is the same in NGU as in non-dysenteric Reiter's disease, which represents a more widespread clinical response.⁴

Yours faithfully,
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TO THE EDITOR, Genitourinary Medicine

New enzyme immunoassay (Pharmacia) compared with MicroTrak (Syva) to detect *Chlamydia trachomatis* in genital tract specimens

Sir,
Microbiology laboratories are faced with a growing demand to diagnose chlamydial infection, mainly from departments of genitourinary medicine (GUM). The methods most widely used are currently either isolation in cell culture, which is labour intensive, or direct immunofluorescent detection of elementary bodies in smears, which is fatiguing. There has therefore been a growing need for a sensitive, specific, and easily performed immunoassay.

This study was carried out to assess the diagnostic agreement between a new enzyme immunoassay (Chlamydia EIA; Pharmacia) and the routine immunofluorescence test (MicroTrak; Syva) used in this laboratory for the past four years.

Urogenital specimens were collected from 90 patients (57 men, 33 women), attending a GUM clinic. The incidence of chlamydial infection in specimens received from this clinic during the past two years was 18%. The patients were selected only on the basis of a high probability of chlamydial infection. Two specimens were taken from each patient (the urethras of men and the endocervices of women), and the order of taking the two swabs was randomised. One swab was used to prepare a direct smear for fluorescent antibody staining; the other was collected into storage buffer (Pharmacia) and stored at -20°C until tested by EIA, which detects *Chlamydia trachomatis* within three hours.

The results (table) show that the Pharmacia Chlamydia EIA was a sensitive (81.3%) and specific (98.7%) test that correlated well (95.6%) with the Syva MicroTrak stain. The order of swab collection made no appreciable difference to the results.

Table New enzyme immunoassay (EIA; Pharmacia) compared with MicroTrak immunofluorescence (Syva) to diagnose chlamydial infection in 90 patients

| EIA | Immunofluorescence | |
|----------|--------------------|----------|
| | Positive | Negative |
| Positive | 10 | 1 |
| Negative | 3 | 76 |

Sensitivity of EIA 81.3%, positive predictive value 91.3%, specificity 98.7%, negative predictive value 96.9%, agreement with MicroTrak 95.6%, prevalence of *C trachomatis* in study group 14.4%.

Our previous experience with two commercially available EIAs to detect chlamydial antigen showed them to be insufficiently sensitive or specific for routine use. In common with other workers,¹ however, we have found the Syva MicroTrak direct smear test to be rapid, sensitive, and specific compared with culture.

The Pharmacia Chlamydia EIA is rapid, easy to use independent of the skills of a microscopist, not open to criticisms of subjective interpretation, and may be used to test large numbers of specimens. These preliminary results indicate that it is a good alternative to the direct smear test.

Yours faithfully,
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TO THE EDITOR, Genitourinary Medicine

Chlamydial infection: which antibiotic for patients with acute intermittent porphyria?

Sir,
A woman recently attended our clinic with *Chlamydia trachomatis* infection of the endocervix. She also suffered from acute intermittent porphyria, which raised the question about the most suitable antibiotic to prescribe. Advice was sought from Dr MR Moore DSc, Porphyria Service, Western Infirmary, Glasgow, G11 6NT. Of the range of antibiotics suitable for chlamydial infection (rifampicin, sulphonamides, tetracyclines, erythromycin, and trimethoprim),¹ rifampicin, erythromycin, and sulphonamides are all totally contraindicated, and the action of trimethoprim and tetracycline is uncertain, in patients with acute intermittent porphyria. The least suspicion is attached to tetracyclines, and doxycycline in a single dose of 200 mg followed by 100 mg a day for six days was therefore prescribed; urinary porphyrin concentrations were also measured before and after treatment. In this case it transpired that doxycycline was entirely safe.